

The LOK6 is an intrinsically safe (Ex ia) radio control handset providing membrane-style push buttons for radio remote control of mobile mining equipment.

The pancake form factor makes the unit comfortable to hold in both hands, allowing easy access to control buttons from the operator's left and right thumbs.

Two enable buttons - accessible from the left and right index fingers - support two-handed control of safety-critical functions.

A built-in 2.4-inch color graphics display reports real-time status feedback from the machine while it is being controlled.

The internal re-chargeable battery provides up to 16 hours of continuous use between re-charge cycles.

Pempek's two-way radio control technology also offers options for collecting and storing machine data while the machine is being controlled.

The data is collected at the end of each shift by the charging station.

Data is then available for machine reporting and performance analytics.

There are several variants of the LOK6 console, each of which has been developed to match a specific type or model of mining machine.

Each LOK6 model is fitted with a printed keypad membrane that matches the control functions of the machine that it was designed for.



Industrial Intrinsically Safe Remote Console

- Exia / ATEX / MSHA Approved
- 12 Dual Function Mil-STD Toggle Switches
- Up to 40 Multi-Purpose Functions
- Integral LED Matrix Display
- Integral Rechargeable Battery

Embedded Industrial Micro-controller

- Low Power PIC Controller
- Integral Flash / RAM
- Advanced Monitoring Software

Narrow Band VHF/UHF

- 8/16 Channels @ 25KHz Spacing
- CCITT CRC Data Protection
- FSK Frequency Modulated
- VHF & UHF Bands
- Up to 100m line-of-sight range.

Operating channels

• 800 MHz - 900 MHz range.

Operates Minus 10°C to +55°C

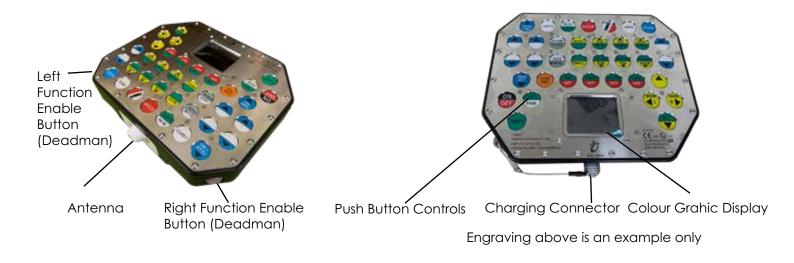
All industrial components

Heavy Duty Enclosure

- Fully Self Contained IP67 Rating
- Stainless Steel Engraved Fascia
- Stainless Steel Switch Guard
- Internal Antenna
- Leather Bound Protective Case
- Rugged Construction



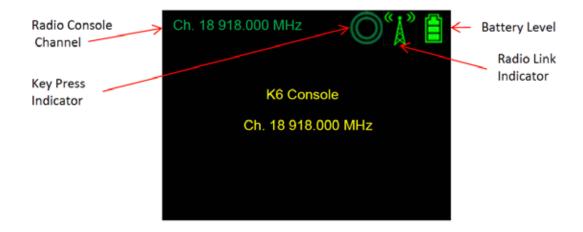
LOK6 Remote Console Features



Graphics Screen Layout

The Remote Console Graphics Display gives the user feedback regarding the operation of the Remote Console system. Along the top of the display is a heading section, which gives feedback regarding Remote Console operation. The remaining area gives feedback for the operation of the system.

The Radio Console Channel shows the current channel and frequency that the console is currently operating on. The Key Press Indicator is shown when a keypad key or dead-man switch is pressed. The Radio Link Indicator is shown in green when there is an active radio link between the console and the machine. Finally, the Battery Level icon gives an indication to the charge capacity of the internal battery of the console.

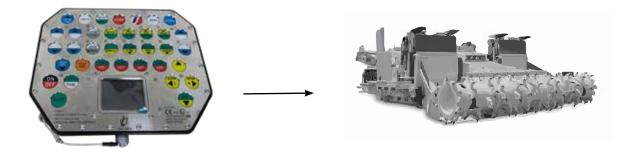




We offer various configuration options to suit but not limited to, Continuous Miners, Continuous Haulage, Long Wall Shearers, Mobile Bolters, Mobile Roof Support, Scoops and LHDs.

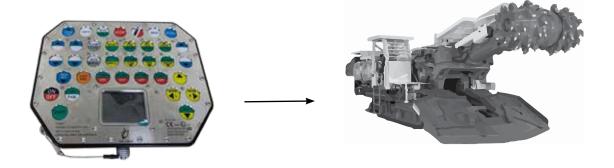
LOK6****

Wireless Remote Control Pancake - Colour Display and Push Buttons Handset for Bolter Miner



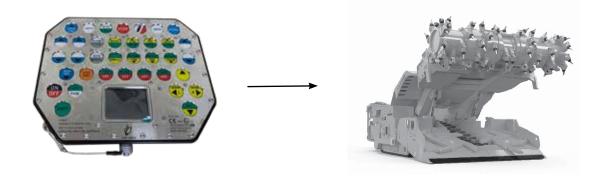
LOK6****

Wireless Remote Control Pancake - Colour Display and Push Buttons Handset for Road Headers



LOK6****

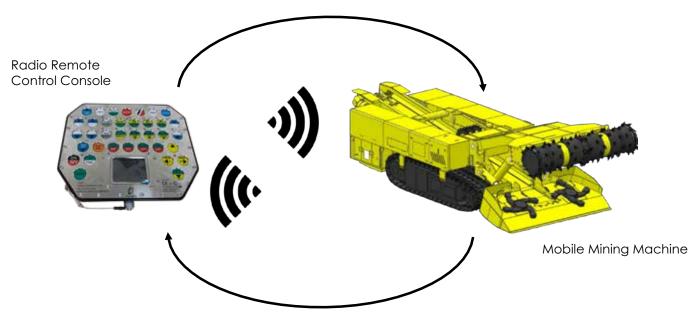
Wireless Remote Control Pancake - Colour Display and Push Buttons Handset for Continuous Miner





Pempek Remote Control – Principle of operation

Remote console sends switch information to control machine

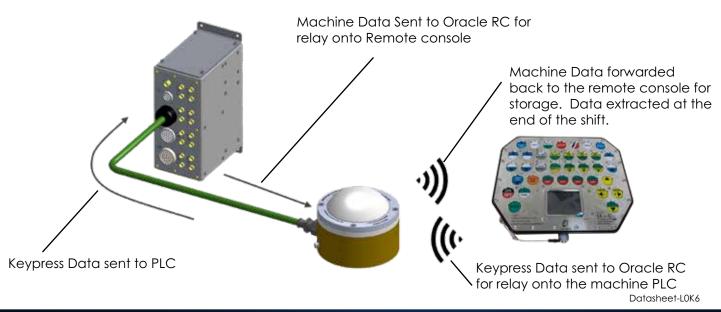


The LOK6 Remote Console belongs to a family of Smart Remote Console products, providing real time control and feedback, as well as data logging capabilities.

In order for a machine control system to communicate with the remote console, a Pempek "Oracle" Radio Data Transceiver Base Station is required. The Oracle features a self-contained radio data transceiver that maintains constant communication with the remote console. The Oracle can then be controlled and monitored by the machine control system over an industry-standard fieldbus. Oracle models are available to support the following fieldbuses: RS-422, CANopen, Ethernet/IP, Ethernet Powerlink and OpenSAFETY (Ethernet Powerlink)

System Integration Options

Machine sends data logging and display information to remote console



Pempek 1985 – 2022 <u>www.pempek.world</u> | <u>sales@pempek.world</u> | 3/13 Hoyle Ave Castle Hill NSW 2154 | +61 02 8853 4800

Pempek Systems Pty Ltd ACN 622 172 721 (Pempek) is the owner of all intellectual property rights subsisting in all of its products, software and hardware, as well as all product information contained in this document (including without limitation in respect of all copyright, designs and know-how). Your use of Pempek's products and intellectual property is strictly subject to: Pempek's Licence Terms and Conditions, which are accessible here: https://pempek.world/terms-and-conditions/#PempekIntellectualPropertyLicenceAgreement



LOSSO101 Charging Station

The LOK6 Remote Console may be charged using an Remote Console Charging station(in the non-hazardous zone only). Connection in hazardous zones using the umbilical cord is only permitted using a Pempek supplied charger which is still under development.

Connect the LOK6 Remote Console to the Remote Console Charger via the cable provided with the charger. Charger and remote must be in the non-hazardous zone.





Connect via LOSS Charging Cable

LOMT Oracle RC Flameproof Ex d Radio Control Transceiver



The LOMT Oracle RC is a self-contained, flameproof (Ex d) radio control data transceiver supporting radio remote control of mobile mining machinery. The module communicates with a variety of Pempekmanufactured handheld remote control consoles via a 2-way radio data stream (based on the 915 MHz band).

A single cable entry to the product supplies power and data communications. A range of field bus options are support - including RS-422, Ethernet and Ethernet/IP.

A host PLC communicates with the Oracle via field bus to receive key-press commands from the remote handset, and send machine status and data logging information back to the handset.

The PLC can also configure the operating channel.